

Remarks/Arguments

Please reconsider the application in view of the above amendments and the following remarks.

Status of Claims

Applicants note with appreciation the allowance of claims 15 and 21. Claims 1-14 and 16-20 have been rejected. Claims 15 and 21 and non-elected claims 22-40 have been canceled without prejudice. New claims 41-49 have been added. Dependent claims 41-47 are added to further define the claimed method. New independent claims 48 and 49 combine the subject matter of independent claim 1 with the subject matter of allowable claims 15 and 21, respectively.

Election/Restriction

Applicants have canceled the non-elected claims 22-40 without prejudice.

Rejections under 35 U.S.C. §103

Claims 1, 5, 7-10, 13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,752,922 to MacAnally, et al. ("MacAnally") in view of U.S. Pat. No. 6,266,302 to Yamanaka ("Yamanaka"). Claims 2-4, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacAnally and Yamanaka and further in view of U.S. Pat. No. 6,580,054 to Liu et al. ("Liu"). Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacAnally and Yamanaka and further in view of U.S. Pat. No. 5,181,224 to Snyder ("Snyder"). Applicants respectfully traverse these rejections.

Applicants submit that the Office action fails to establish a *prima facie* case of obviousness. MacAnally and Yamanaka, even if combined, do not teach or suggest all of the limitations recited in independent claim 1. Moreover, the references cannot be properly combined because there is no motivation in the prior art to suggest the desirability of such a combination.

Both MacAnally and Yamanaka fail to disclose directing an astigmatic focal beam spot at a substrate to obtain at least a partial cut in the substrate, as recited in independent claim 1.

MacAnally and Yamanaka both disclose the use of a laser to read and write data on an optical disk. Neither MacAnally, nor Yamanaka, disclose that an astigmatic focal beam spot is used to form at least a partial cut in the optical disk or any other substrate during either the read or write operation.

MacAnally describes a coarse seek function in which a coarse seek beam 6 is astigmatized to form a line focused spot 25 on the disk 1 surface (col. 6, lines 57-64). The line focused spot 25 is used for the proper operation of the coarse servo tracking system, not to form a cut in the optical disk or any other substrate. MacAnally refers to an astigmatic focusing lens system 51 in the read optical train, which introduces an astigmatism into the reflected read beams 50 before focusing the reflected read beams 50 onto a detector array 52 (col. 11, lines 8-24). However, the reflected read beams 50 do not form a cut in the detector array 52. Moreover, when describing the write optical train, MacAnally specifically teaches that a circular spot is necessary for writing and thus the astigmatic divergent beam is circularized (col. 4, lines 55-57). Thus, an astigmatic beam is not even directed at the optical disk during a write operation.

Similar to the read operation in MacAnally, Yamanaka discloses that a beam reflected by an optical disk 105 is passed through an astigmatic element 107 to form an astigmatic beam that is received by a photodetector 108 (col. 3, lines 32-42). The astigmatic beam in Yamanaka, however, is not directed at the photodetector 108 to form a cut in the photodetector. Yamanaka also fails to disclose directing an astigmatic beam at the optical disk or any other substrate to form a cut therein.

Therefore, even if MacAnally and Yamanaka could be combined, the combination would not result in the claimed method including the step of directing the astigmatic focal beam spot at the substrate to obtain at least a partial cut in the substrate. Because the Office action fails to establish *prima facie* obviousness of independent claim 1, applicants request that the rejection under 35 U.S.C. 103 of claim 1, and all claims dependent therefrom, be withdrawn.

Applicant also submits that claims dependent from claim 1 are separately patentable. For example, neither MacAnally, nor Yamanaka, disclose varying the convergence (claim 7), symmetrically cropping low intensity edges (claim 9), a semiconductor wafer including a device

layer (claim 13), moving a substrate in a cutting direction along a length of the astigmatic focal beam spot (claim 18), or creating a plurality of separated astigmatic beamlets (claim 19). In fact, the Office action never addresses any of these claimed features.

With respect to dependent claims 2-4, 11-12 and 14, applicant further submits that no motivation exists to combine MacAnally and Yamanaka with Liu. Liu describes the scribing of sapphire substrates with a solid state UV laser. The sapphire scribing system and method described by Liu is not even in the same field of endeavor as the optical disk reading/writing systems described by MacAnally and Yamanaka. Nothing in the prior art suggests the desirability of using the UV laser and operating parameters for scribing sapphire described in Liu to read or write an optical disk. Indeed, if such UV laser and operating parameters were used in the systems of MacAnally and Yamanaka, the optical disk would likely be destroyed.

For these additional reasons, applicants submit that dependent claims 2-4, 11-12 and 14 would not have been obvious and requests that the rejection of these claims under 35 U.S.C. 103 be withdrawn.

New dependent claims 41-47 are added to further define the claimed method. Applicants submit that these claims are also not disclosed or suggested by prior art of record for the same reasons discussed above.

Conclusion

The claims have been shown to be allowable over the prior art. Applicant believes that this paper is responsive to each and every ground of rejection cited by the Examiner in the Action dated October 18, 2005, and respectfully requests favorable action in this application. The examiner is invited to telephone the undersigned, applicant's attorney of record, to facilitate advancement of the present application.

Please apply any charges not covered, or any credits, to Deposit Account 50-2121 (Reference Number JPSA001).

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Respectfully submitted,

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